CLAIMS

1. A position-detecting device, comprising:

a light-emitting source for generating a projecting light source;

an optical mechanism for receiving said projecting light source originated from said light-emitting source, and generating a signal light source after processing; and

a light-detecting device, fixed at one side of said optical mechanism, and having a plurality of light-detecting units provided thereon, each of said light-detecting units including at least one light-detecting element, provided as a non-rectangular mode, for receiving said signal light source.

2. The position-detecting device according to Claim 1, wherein between any two of said adjacent light-detecting elements are provided interval space, and at a vertical extension of each interval space having a partially active area of one of said light-detecting elements is provided.

3. The position-detecting device according to Claim 1, wherein said light-detecting element is provided as a parallelogram mode, and any two of said adjacent parallelogram-like light-detecting elements are provided in parallel with each other.

4. The position-detecting device according to Claim 1, wherein said light-detecting element is provided as a trapezoid mode, and any two of said adjacent trapezoid-like light-detecting elements are disposed in an inverted manner.

5. The position-detecting device according to Claim 4, wherein a long bottom side of said trapezoid-like light-detecting element is provided at a vertical extension of a bottom side of said adjacent light-detecting element.

6. The position-detecting device according to Claim 1, wherein said light-detecting element comprises a vertical sections, a first horizontal section disposed at one end of said vertical section and extending toward one horizontal direction, and a second horizontal section disposed at the other end of said vertical section and extending toward the other horizontal direction.

7. The position-detecting device according to Claim 1, wherein said second horizontal section of said light-detecting element is provided at a vertical extension of said first horizontal section of said adjacent light-detecting element.

8. The position-detecting device according to Claim 6, wherein the length of said first horizontal section is equal to that of said second horizontal section.

9. The position-detecting device according to Claim 6, wherein the length of said first horizontal section is greater than that of said second horizontal section.

10. The position-detecting device according to Claim 1, wherein said light-detecting element is provided as a "T"-shaped mode, and any two of said adjacent "T"-shaped light-detecting elements are disposed in an inverted manner.

11. The position-detecting device according to Claim 1, wherein each of said light-detecting units further comprising a signal selection circuit, one of said light-detecting units provided with a light detecting element receiving the largest amount of signal light source allowed for transmitting a first logic signal, and others allowed for transmitting a second logic signal.

12. The position-detecting device according to Claim 11, wherein the amount of signal light source received by said light-detecting element is determined via a selection performed just once by a maximum current selection circuit.

13. The position-detecting device according to Claim 11, wherein the amount of signal light source received by said light-detecting element is determined via a selection performed at least once by at least one comparative amplification circuit.

14. The position-detecting device according to Claim 1, further comprising a set/reset switch used for converting what is selected from the group consisting of said first logic signal, said second logic signal, and the combination thereof into a digital signal.

15. The position-detecting device according to Claim 1, wherein said optical mechanism is a mask, and a plurality of grating-holes are chiseled at the periphery of said mask.

16. The position-detecting device according to Claim 1, wherein said position-detecting device is applied to what is selected from the group consisting of a cursor indicator, a mouse, a knob, and the combination thereof.

17. A position-detecting device, the main structure thereof comprising:

a light-emitting source for generating a projecting light source;

an optical mechanism for receiving said projecting light source originated from said light-emitting source, and generating a signal light source after processing; and

a light-detecting device, fixed at one side of said optical mechanism, and having a plurality of light-detecting units provided thereon, each of said light-detecting units including at least one light-detecting element, wherein between said light-detecting element and a light-irradiated zone projected by said signal light source, an inclined angle is provided.

18. The position-detecting device according to Claim 17, wherein said light-detecting element is provided as a non-rectangular mode.

19. The position-detecting device according to Claim 17, wherein between any two of said adjacent light-detecting elements are provided interval space, and at a vertical extension of each interval space having a partially active area of one of said light-detecting elements is provided.

20. A position-detecting device, the main structure thereof comprising:

a light-emitting source for generating a signal light source;

a mask provided with a plurality of slant granting-holes for allowing of said signal light source to pass through, while between said slant granting-holes and the center of said mask an inclined angle provided; and

a light-detecting device, fixed at one side of said optical mechanism, and having a plurality of light-detecting units provided thereon, each of said light-detecting units including at least one light-detecting element, provided as a non-rectangular mode, for receiving said signal light source.

21. The position-detecting device according to Claim 20, wherein a non-rectangular light-irradiated zone is formed on said light-detecting device by said signal light source after passing through said slant granting-hole.

22. The position-detecting device according to Claim 20, wherein said light-detecting unit is provided as a rectangular mode.